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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/781,647 | 02/12/2001 | George H. Lydecker | 3054-028 | 8365 |

22440 7590 10/07/2005

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| EXAMINER |
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LAO, LUN S

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| ART UNIT | PAPER NUMBER |
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2644

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/781,647 | | LYDECKER ET AL. | |
| | Examiner | | Art Unit | |
| | Lun-See Lao | | 2644 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-30 and 42-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-30 and 42-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>08-23-2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. This is response to the amendment filed on 07-20-2005. Claims 1-11 and 31-41 have been cancelled. Claims 12-30 and 42-52 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 12 recites the limitation " an azimuth locating mechanism mounted on said base and rotatable about said center point" in the amendment claim 12. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12-16 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiklund (US PAT. 5,229,828).

Consider claim 12, Wiklund teaches a device for optimal positioning a plurality of pointer with respect to a reference point (see figs.5-8,), said device comprising:

a base (see fig.6, (50-52));

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an azimuth locating mechanism mounted on said base (see fig.6, 50-52) and rotatable about said center point (see figs.5-8), said azimuth locating mechanism including a first beam generator (see fig.6, 59, optical arrangement) adapted to generate a beam of light to indicate an angular position (64, 65, angular meter) for said object (see figs. 5-8), and to indicate when a distance (54, distance meter) between said device and an object (e.g., a car or a rod) within a predetermined range (see col.7 line 20-col.7 line 53), but Wiklund fail to teaches that the object being positioned are speakers.

However, Wiklund does not limit the positioning device in which is limited to position objects such as a car or rod only.

Therefore, it would have been obvious that the positioning device as taught by Wiklund could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

Consider claims 13-14, Wiklund teaches the device of fudher comprising a plurality of pointers arranged radically around a center point (see figs 5-8), each pointer indicating a position for one of an object ((e.g., a car or a rod) and see col.6 line 3-col.7 line 20 and discussion on claim 12); and the device of further comprising a location indicator (see fig.6 (54, distance meter)) adapted to indicate the relative position of said azimuth locating mechanism and said pointers (see figs 5-8 and col.6 line 3-col.7 line 20).

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Consider claims 15-16, Wiklund teach the device of the base is a disk shaped plate (see fig.5, 45) with a top surface and wherein said pointers (see figs.5-8) are arranged on said top surface (see col.6 line 3-col.7 line 20); and the device of the base is a disk shaped plate (see fig.5, 45) with a side surface and wherein said pointers (see figs.5-8) are arranged on said side surface (see figs 5-8 and col.6 line 3-col.7 line 20).

Consider claims 22-23, Wiklund teaches a distance indicator (see fig.6, (54 distance meter) and see col. 6 line 3-col.7 line 20), but Wiklund fails to teach the device of the distance indicator comprises an acoustic device or a radar device. However, it is well known in the art (official notice is taken) that using an acoustic device or a radar device to measure the distance and therefore it would have been obvious that Wiklund could have the distance indicator comprising an acoustic device or a radar device for market demand.

6. Claims 17-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiklund (US PAT.5,229,828) in view of Kordana (US PAT. 5,118,184).

Consider claim 17, Wiklund teach that they indicate the optimal position for that object (such as a rob and see figs 5-8 and col.6 line 3-col.7 line 20 and discussion on claim 12); but, Wiklund does not explicitly that the optimal position for the speaker is indicated to the user by impinging a second light beam which is generated by a by a second light beam generator.

However, Kordana explicitly that the optimal position for the object is indicated to the user by impinging a second light beam which is generated by a by a second light beam generator (see figs. 5-6 and col. 5 lines 16-23 and discussion in the claim 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kordana in to the teaching of Wiklund to inform the user that the optimal position of the object by impinging of the second light beam to easily set up and ues.

Consider claims 18-19, Kordana teaches the device of the beam generators are laser devices (see fig.6 150); and the device of the beam generators are optical devices adapted to generate respective images (see figs. 5-6 and col. 5 lines 16-23).

Consider claim 20 Kordana teaches that the device of the azimuth locating mechanism includes an altitude adjustment bracket (see fig.7, 96), said beam generators being mounted on said altitude adjustment bracket, said altitude adjustment bracket being movable to direct beams from said beam generators at speakers (objects) disposed in a plane spaced away from a plane of said base (see figs. 6-8 and col. 5 lines 23-65).

Consider claim 21, Wiklund teaches the device of the beam generators (see fig.6, (59 optical arrangement)) are adapted to generate respective beams which, when impinging on one of an object (e.g., a car or a rod), are offset in a predetermined direction (see figs 5-8 and col.6 line 3-col.7 line 20).

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Consider claim 24, Kordana teaches the device of further comprising a lock adapted to secure said azimuth locating mechanism in one of several predetermined positions with respect to said base (see figs.3-4 and col.3 line 5-col.4 line 4).

7. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toga (US PAT. 5,218,770).

Consider claim 25, Toga teaches that a method of locating objects of a multi-object system at optimal positions with respect to a reference point, said method comprising (see figs. 10-11):

placing a object locating device at said reference point (see figs. 10-11(b)), said object locating device including a beam generator (s and d) rotatable about an axis passing through said reference point (b) and generating a light beam (s and d); placing a first object (a) along a first axis passing through said reference point (b); directing said light beam at said first object (a) to define a reference line; rotaing said beam generator by a predetermined angle (such as 90 degree) with respect to said reference line (see col.6 line 23-60) to define a second axis; and a placing a second object (c) on said second axis (see figs 10-11 and col.8 line 11-col.9 line 32), but Toga fail to teaches that the object being positioned are speakers.

However, Toga does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Toga could have been used to position other objects such as speakers, e.g., by implementing

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a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

Consider claim 26, Tago teaches a method of placing a plurality of objects (such as rod) at predetermined angles and a common distance from a reference point, said method comprising (see figs. 10-11):

placing a object locating device (see fig.10, (s)) at said reference point (b), said object locating device including an azimuth locating mechanism including a first beam and second beam generator (see fig.1, 6), said beam generator being rotatable with respect to each other (by 90 degree), said azimuth locating mechanism being rotatable about an axis passing through said reference point (see figs 10-11 (b) and col.4 line 63-col. 4 line 36);

placing a first object (c) in a first position spaced at said common distance from said reference point (b); directing said beam generator (see fig.1,6) at said first object (c) along a reference axis and rotating them with respect to each other to obtain spots on said object having a predetermined spatial relationship, fixing the relative position of wherein beam generators (see fig1, 6) with respect to each other; rotating azimuth locating mechanism to a position defined by a second axis at a predetermined angular offset from said reference axis; placing a second object (a) along said second axis with said spots impinging on said second object (a), and adjusting (by user) the position of said second object until said spots are approximately in said predetermined spatial relationship (see figs 10-11 and col.8 line 11-col.9 line 32), but Toga fail to teaches that

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the object being positioned are speakers. Toga does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Toga could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

Consider claim 27, Toga teaches the method of the spots are offset along a first line in said predetermined spatial relationship, said first line being transversal to said first and second axes (see figs 10-11 and col.8 line 11-col.9 line 32).

Consider claim 28, Toga teaches the method of the distance between said first speaker (object) and said reference point is determined using a separate distance detector (see figs 1 (6, such as a laser beam) and 10-11 and col.8 line 11-col.9 line 32 and discussion on claim 26).

Consider claim 29 Toga teaches the method of the distance between said first object (e.g., a rod, (c)) and said reference point is (b) determined using said an object (e.g., a rod, (c)) locating device (see figs 10-11 (s) and col.8 line 11-col.9 line 32 and discussion on claim 26).

Consider claim 30, Toga teaches the method of said first and second beam generators (see fig1. (6)) are locked with respect to each other (such as 90 degree) while said azimuth locating mechanism is rotated (see col.4 line 63-col. 5line 36).

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8. Claims 42-46 and 49-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt et al. (US PAT. 5,579,102).

Consider claim 42, Pratt teaches a aligning device (see fig.1) to place a plurality of objects at an equal distance from a reference point, wherein said aligning device comprises:

a supporting base having a center to be placed at said reference point (see fig.15, (702, center point);

a first beam generator (see fig. 15, (100, transmitter) and abstract) coupled to said supporting base (see fig. 15);

a second beam generator (100) coupled to said supporting base and rotatable (702) with respect to said fist beam generator (100),

a first lock (701, fixer) arranged to secure said first beam generator (100) with respect to the second beam generator (100) while said beam generators are moving with respect to said base (see fig. 15 and col. 6 line 65-col. 7 line 30); but Pratt fail to teaches that the object being positioned are speakers. Pratt does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Pratt could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

Consider claims 43-44 Pratt teaches the aligning device of further comprising a first bracket (see fig.15, (701, fixer)) joined to said supporting base at the center of said supporting base; and a second bracket (702) joined to the first bracket (701) to support the second beam generator (100) while allowing said second beam generator (100) to be rotated about the center of the supporting base (see fig. 15 and col. 6 line 65-col. 7 line 30).

Consider claims 45-46, Pratt teaches the aligning device of claim 43 further comprising a first locking mechanism to selectively allow the first bracket (see fig.15, (701)) to move to rotate (up and down) the first beam (100) generator about the center of the supporting base and to secure the first beam generator (100 and see abstract) from movement (see fig. 15 and col. 6 line 65-col. 7 line 30); and the aligning device of further comprising a second locking mechanism (see fig.15(702)) to selectively allow the second bracket (702) to move to rotate (up and down) the second beam generator (100) about the center of the supporting base and to secure the second beam generator (100 and see abstract) from movement (see fig. 15 and col. 6 line 65-col. 7 line 30).

Consider claims 49 and 51, Pratt teaches the aligning device of the first and second beam generators (see fig. 15 (100)) are selected from a group of reference pointers consisting of laser devices, radar range detectors, ultrasonic range detectors, and optical projectors (see fig. 15 and abstract and col. 6 line 65-col. 7 line 30); and aligning device of further comprising a pedestal coupled to said supporting base to maintain the center of the supporting base at the reference point (see fig. 15 and col. 6 line 65-col. 7 line 30).

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Consider claims 50 and 52, Pratt fails to teach that the speakers to be placed are in a surround sound system and the speaker aligning device of further comprising indicia placed on said supporting base indicating azimuth designations for each speaker.

However, Pratt does indicated a device to position a rod and Pratt does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Pratt could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

9. Claims 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt (US PAT. 5,579,102) in view of Cain (US PAT. 6,055,046).

Consider claims 47-48, Pratt teaches the aligning device of further comprising an elevation adjustment mechanism to adjust the first and second beam generators (see fig.15, (100)) such that the first and second reference selectively are moved from a plane containing said supporting base (see fig. 15 and col. 6 line 65-col. 7 line 30); and the aligning device of the first bracket (see fig. 15, (701, fixer)) comprises an altitude adjustment mechanism to selectively adjust the first and second beam generators (see figs. 15, (100)) such that the first and second reference are moved from a reference plane containing the reference point (see fig. 15, (702, center point) and col. 6 line 65-col. 7 line 30), but Pratt does not clearly teach a reference markers.

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However, Cain teaches the reference markers (see fig. 5 and col.11 line 54-col.12 line 60)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Cain in to the teaching of Pratt to provide a system and method for aligning a laser transmitter accurately.

Response to Arguments

10. Applicant's arguments with respect to claim 12-30 and 42-52 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderson (US PAT. 4,856,894) is recited to show other related the speaker alignment tool.

12. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:
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Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner

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should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501

Date 09-21-2005



VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600